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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,428	01/03/2001	Kung-Liang Kevin Sung	IPC-109A, Case 25	1174

321 7590 09/01/2006

SENNIGER POWERS  
ONE METROPOLITAN SQUARE  
16TH FLOOR  
ST LOUIS, MO 63102

EXAMINER
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KUHNS, ALLAN R

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/753,428

Applicant(s)

SUNG ET AL.

Examiner

Allan Kuhns

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 26-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1732

1. Claims 26-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are indefinite because independent claims 26 and 35 require the presence of "vinyl chloride resin foaming agent" in the product when it has already acquired a sheet form. But it appears that when the sheet has formed, only remnants or decomposition products of the foaming agent are present in the sheet. Clarification is required.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 26-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waki et al. (4,800,214). Waki et al. disclose or suggest the basic claimed synthetic sheet or plate (column 3, line 51) including (1) about 70 to about 100 parts by weight of vinyl chloride resin (note table 1), (2) about 10 to about 100 parts by weight of a natural cellulosic product (note the teaching of the use of wood powders in the alternative at column 17, line 35 in conjunction with filler amounts described in the examples set forth in Table 1), and (3) about 0.5 to about 10 parts by weight of vinyl chloride resin foaming agent (column 9, lines 57-63). Waki et al. suggest the production of a sheet or plate having a density within the ranges of claims 26 and 35, based on the specific gravities listed for the examples and comparative examples in Table 1. It is submitted that the

Art Unit: 1732

hardness of the sheet or plate produced by Waki et al. is inherently within the claimed ranges, based on the composition shaped by Waki et al. and the specific process steps conducted. Waki et al. appear not to describe their synthetic sheet or plate as "wood-like", but it would have been obvious to one of ordinary skill in the art that the composite sheet or plate produced by Waki et al. would tend to exhibit some characteristics of wood for the embodiment in which wood powders are used as an additive.

Waki et al. teach the use of stabilizers and processing aids, as in claims 34 and 43, at column 4, lines 13-19. Waki et al. describe the aspect of removing a film from a sample plate or sheet at column 12, lines 54-58, and after such film removal, it is submitted that the sample has a foam surface and a foam core, as in claims 33-42. Waki et al. describe forming a plate molding body having a thickness of 3 mm at column 12, line 58, which is within the range of claims 27 and 36, but it is submitted that it is well within the skill level of one of ordinary skill in the art to form a sheet or plate having a thickness within the limitations of claims 27-29, 31, 32, 36-38, 40 and 41, in response to product specifications. It is further submitted that the sheet or plate of Waki et al. would inherently exhibit a shrinkage amount within the ranges of claims 30 and 39, based on physical properties related to its composition.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

Art Unit: 1732

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Allan R. Kuhns*  
ALLAN R. KUHNS  
PRIMARY EXAMINER AU 1732  
8-29-06